

Dear Parents,

We will begin our next unit of study in math soon. The information below will serve as an overview of the unit as you work to support your child at home. If you have any questions, please feel free to contact me. I appreciate your on-going support.

Sincerely,

Your Child's Teacher

Unit Name: Numerical Patterns

Common Core State Standards:

5.OA.3 Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.

Essential Vocabulary:

- related sequence
- line graph
- data table
- x-axis
- y-axis
- ordered pair

Unit Overview:

This standard builds on students' work from fourth grade, where students generate numerical patterns when they are given one rule. In fifth grade, students are given two rules and generate two numerical patterns. The graphs that are created should be line graphs to represent the pattern.

Strategies/Skills:

Students will create related sequences in data tables and plot points to create line graphs. Students will determine the relationship between $-x$ and $-y$ in an ordered pair in a data table. (*Ex: $x = y + 2$ shows that each $-x$ is two more than the $-y$ in the pattern. If x is 9, y is 7*). Students will also compare line graphs. Students are required to solve real-world problems using patterns to plan a 'Spring Carnival'.

- Line graphs
- Data tables

Video Support:

No videos referenced for this unit.

Additional Resources:

If you have limited/no internet access, please contact your child's teacher for hard copies of the resources listed in this document.

- NCDPI Unpacking Document: [5th Grade Unpacking Document](#)